

CLAIM AMENDMENTS

1. (Currently Amended) A semiconductor device comprising a vertical MOSFET ~~that uses~~ including SiC, wherein a base region of the vertical MOSFET has a tapered shape.

2. (Currently Amended) The semiconductor device according to claim 1, wherein the taper angle of the base region of the vertical MOSFET ~~set to an angle of~~ is within a range of 30° or more and to 60° or less.

3. (Currently Amended) A method of manufacturing a ~~semiconductor device, wherein in manufacture of a~~ vertical MOSFET ~~that uses~~ including SiC, the method comprising forming a source region and a base region ~~are formed~~ by ion implantation using ~~the same one~~ one mask.

4. (Currently Amended) The method of manufacturing a semiconductor device according to claim 3, wherein the ~~same~~ mask has a tapered shape that is tapered at an angle ~~of~~ in a range from 30° or more and to 60° or less, and ~~is formed from a material that equals matches~~ SiC ~~in terms of range in~~ of ion implantation.

5. (Currently Amended) The method ~~of manufacturing a semiconductor device~~ according to claim 3, wherein the ~~same~~ mask has a tapered shape that is tapered at an angle ~~of~~ in a range from 20° or more and to 45° or less, and ~~is formed from~~ made of SiO₂.

6. (Currently Amended) The method ~~of manufacturing a semiconductor device~~ according to claim 3, wherein, in the ion implantation, ions are implanted perpendicular to and obliquely with respect to a substrate.

7. (Currently Amended) The method ~~of manufacturing a semiconductor device~~ according to claim 6, wherein the ~~same~~ mask is ~~formed from~~ a material that is longer in ion implantation range than SiC ~~in terms of range in ion implantation~~.

8. (Currently Amended) The method ~~of manufacturing a semiconductor device~~ according to claim 6, wherein the ~~same~~ mask is ~~formed from~~ a material that equals SiC ~~in terms of range in~~ of ion implantation, and the ion implantation angle is ~~set to~~ no more than 70° or less.

9. (Currently Amended) The method of manufacturing a semiconductor device according to claim 6, wherein the ~~same~~ mask is ~~formed from~~ SiO₂, and wherein the ion implantation angle is ~~set to~~ no larger than 75° or less.

10. (Currently Amended) The method of manufacturing a semiconductor device according to claim 3, wherein, in the ion implantation, ions are implanted obliquely with respect to a substrate, and the ion implantation angle with respect to the substrate is smaller in forming the base region than in forming the source region of the vertical MOSFET.

11. (Currently Amended) The method of manufacturing a semiconductor device according to claim 6, ~~wherein~~ including implanting ions are implanted using the ~~same~~ mask ~~having~~, wherein the mask has a tapered shape.

12. (Currently Amended) The method of manufacturing a semiconductor device according to claim 10, ~~wherein~~ including implanting ions are implanted using the ~~same~~ mask ~~having~~, wherein the mask has a tapered shape.